Cellulosic ethanol

It is a type of biofuel produced from lignocellulose. This is a fuel like oil that can be produced from plant matter. I recommend the plant Macrocystis pyrifera. The usual method of creation is the fermentation method. The fermentation method generally uses three steps: (1) the formation of a solution of fermentable sugars, (2) the fermentation of these sugars to ethanol, and (3) the separation and purification of the ethanol, usually by distillation.

Ethanol, unlike gasoline, is an oxygenated fuel that contains 35% oxygen, which reduces particulate and NOx emissions from combustion. NOx or nitrous oxide is found in diesel engines exhaust gases.

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| Energy Source | Pros | Cons | Recommendations |
| Ethanol | Sustainable as it uses a renewable resource (plants)  Easy to produce through a fermentation method | Requires plant matter | In harmony with agriculture.  I suggest the plant Macrocystis pyrifera  As the one to be used. It is a fuel so it should be used as fuel for cars and other transport. |

This is a list of companies in the us that provide ethanol fuel to the public (In modern day earth). Source Wikipedia.

| **Commercial Cellulosic Ethanol Plants in the U.S.**[[72]](http://en.wikipedia.org/wiki/Cellulosic_ethanol#cite_note-72)[[73]](http://en.wikipedia.org/wiki/Cellulosic_ethanol#cite_note-73) **(Operational or under construction)** | | |
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| **Company** | **Location** | **Feedstock** |
| Abengoa Bioenergy | Hugoton, KS | Wheat straw |
| BlueFire Ethanol | Irvine, CA | Multiple sources |
| [Colusa Biomass Energy Corporation](http://en.wikipedia.org/w/index.php?title=Colusa_Biomass_Energy_Corporation&action=edit&redlink=1) | Sacramento, CA | Waste rice straw |
| Coscata | Warrenville, IL | Biomass, Agricultural and Municipal wastes |
| [DuPont Danisco Cellulosic Ethanol (DDCE)](http://en.wikipedia.org/w/index.php?title=DuPont_Danisco_Cellulosic_Ethanol_(DDCE)&action=edit&redlink=1) | Vonore, TN | Corn cobs, switch grass |
| [Fulcrum BioEnergy](http://en.wikipedia.org/w/index.php?title=Fulcrum_BioEnergy&action=edit&redlink=1) | Reno, NV | Municipal solid waste |
| Gulf Coast Energy | Mossy Head, FL | Wood waste |
| KL energy corp | Upton, WY | Wood |
| Mascoma | Lansing, MI | Wood |
| POET-DSM Advanced Biofuels | Emmetsburg, IA | Corn cobs, husks, and stover |
| Range Fuels | Treutlen County, GA | Wood waste |
| SunOpta | Little Falls, MN | Wood chips |
| SweetWater energy | Rochester, NY | Multiple Sources |
| US envirofuels | Highlands County, FL | Sweet sorghum |
| Xethanol | Auburndale, FL | Citrus peels |

Sources

Wikipedia

<http://large.stanford.edu/publications/coal/references/docs/badger.pdf>

<http://www.paxmanhistory.org.uk/glossary.htm>